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Chapter 3

Complex Decision-Making Process of Infrastructure Investment in Indonesian Public-Private Partnership Arrangements

3.1 Introduction

Although discussions on the effect of infrastructure on the economy are interesting for both scholars and policymakers, infrastructure planning and decision making are, in fact, not simple processes. Decision making for infrastructure such as building roads, ports, and other major public works is becoming more complex. The issues that need to be considered are not only technical and economic, but also environmental and political.

There is a trend all over the world for citizen involvement in decision making. In line with this trend, governments are exploring different types of planning and decision making that consider the increased interdependency of actors. Concepts such as interactive planning, network management, stakeholder dialogue, community governance, open-planning procedures, and participatory planning have emerged (see, for example, Arts & Tatenhove, 2005; Edelenbos & Klijn, 2006; Woltjer, 2002).

In the present globalized era, we live in a networked society. Any policy, any strategy, any human project, has to consider this basic fact (Castells, 2006). It is little wonder that decision making has become more complex. Problems cannot be solved by organizations on their own. As a consequence, hierarchy as an organizational principle has lost much of its meaning, with horizontal networks replacing hierarchies (Koppenjan & Klijn, 2004). As Birkland (2001) said, intuitively we can understand that actors in the policy process can and must interact with each other to advance policy proposals. Without this interaction, nothing would happen, and policymaking would come to a standstill. Organizations and individuals who are participants in complex decision problems interact in an environment in which conditions are often changing rapidly and unpredictably,

which increases the uncertainty experienced by participants dealing with decision problems (Radford, 1978).

These issues not only affect developed countries but also countries in transition like Indonesia, which have become democratized. Reform occurs not only in the political system but also in public administration and public finance, together with a decentralization policy. Even though discussions on new perspectives on decision making usually take place in Western countries, it is quite interesting to explore the possibility of using a variety of analytical approaches in a newly democratic country such as Indonesia, where the concept of participatory planning and citizen involvement has been growing (see, for example, Dasgupta & Beard, 2007; Timothy, 1999). However, it is also important to note that political, sociocultural, and economic environments in Indonesia are different from those in Western countries.

The purpose of this study is to understand the complexity of the decision-making process in infrastructure investment in Indonesia, particularly in PPP arrangements: to understand to what extent this complexity actually exists and how the government as a key actor deals with these new environments. The researcher uses a network perspective as a framework for study and the Rounds Model (Teisman, 2000) as a point of departure to analyze the complexity of decision making in infrastructure investment. The study contributes to the discussion on complexity in the context of developing countries with reference to the configuration of actors in the policy network.

This chapter is organized as follows. Section 3.2 presents the theoretical framework that underlies the analysis, emphasizing the network approach. Section 3.3 presents the research methodology, and section 3.4 describes the research context of the study: Indonesian infrastructure development and policy. This section also describes the Indonesian policy on PPP. Section 3.5 presents four case studies on infrastructure projects in Indonesia. This is followed by interpretive readings and a discussion in section 3.6. Section 3.7 draws conclusions.

3.2 Theoretical Framework and Model

This section describes the decision-making process for infrastructure investment. To start with, the theoretical background is outlined and then the analytical model. Process analysis and decision-making process analysis receive a lot of attention in the field of political

sciences and public administration. Theoretical developments in those academic disciplines have made a valuable contribution to researchers working with planning and policymaking to cope with environment and spatial issues and problems.

In analyzing decision making, the researcher needs to reconstruct the study object. Decision making cannot be depicted without making assumptions about its appearance (Teisman, 2000). Terms such as framework and model have been used to define approaches to address the topic of policy process analysis. Models of a policy process can help us to learn what is most important in the policy process (Birkland, 2001).

Various approaches have been developed as a foundation for either a policy process or a decision-making process analysis. Sabatier (1991) noted that there are four frameworks: the open-systems framework of Richard Hofferbert, an approach involving rational actors within institutions developed by Elinor Ostrom and her colleagues, John Kingdon's "policy streams" framework, and his own "advocacy coalition" framework. In addition to those frameworks, there are also more models like Birkland (2001), who noted the garbage can model developed by Michael Cohen, James March, and Johan Olsen (1972). Teisman (2000) elaborates on three models: phases, streams, and rounds. Monnikhof (2006) reviews four models and their relevance to the Netherlands: network theory, garbage can and stream theory, the rounds model, and the advocacy coalition framework.

Each framework or model has its own assumptions. Readers should also note that researchers have developed these models based on case studies in developed countries. Therefore, the contextual aspects should be considered before applying the model for analysis. In order to find a model that suits the context of analysis, the researcher will briefly present three of the most prominent approaches for decision-making process analysis: the policy network approach, the advocacy coalition framework, and the rounds model.

3.2.1 Policy Networks

One of the perspectives that scholars in political sciences and public administration now discuss is the policy network. The concept of policy network has received a lot of attention from researchers in various countries, mostly in developed countries such as the United Kingdom, the United States, Germany, and the Netherlands.

However, the observation of network configurations in the literature of public policymaking is not completely new. It can be traced back to the late 1960s and early 1970s (see Kenis & Schneider, 1991; Klijn, 1997; Klijn & Koppenjan, 2000).

Basically, the network perspective on public policy sees policy as being formed through interactions between different actors who have their own perceptions and strategies (Edelenbos & Klijn, 2006). The core of this perspective is a decentralized concept of social organization and governance: society is no longer exclusively controlled by a central intelligence; rather, controlling devices are dispersed, and intelligence is distributed among a multiplicity of action (or “processing”) units. The coordination of these units is no longer the result of “central steering” or some kind of “prestabilized harmony” but emerges through purposeful action by exchanging information and other relevant resources (Marin & Mayntz, 1991).

The network approach assumes that policy is made through complex interaction processes among a large number of actors. The interaction takes place within networks of interdependent actors. These actors are mutually dependent, so policy can only be realized on the basis of co-operation. This co-operation, however, is by no means simple or spontaneous, and it requires different types of game management and network constitution (Klijn & Koppenjan, 2000). The network approach assumes that actors are mutually dependent. Actors cannot achieve their objectives without resources that are possessed by other actors (Klijn & Koppenjan, 2000).

In the literature on governance, the concept of policy network could be located somewhere beyond or between the market and hierarchies (Kenis & Schneider, 1991). In relation to decision-making processes, many decisions in the public sector have to be made in networks that consist of various actors who are mutually dependent and have diverging interests (de-Bruijn, 2005).

Policy networks have been intensively criticized in the literature (Blom-Hansen, 1997; Borzel, 1998; Dowding, 1995; Rhodes, 1996). One central point of criticism is that the network approach is not based on a solid theoretical body of knowledge (Borzel, 1998). Another criticism is that policy networks are not able to deploy any explanatory power (see Borzel, 1998; Dowding, 1995). In response to such criticism, Klijn and Koppenjan (2000) clarify the theoretical concepts and axioms of the policy network approach and argue that this framework has important explanatory power for both, strategic interaction processes as well as institutional relations. The researcher argues that the policy network approach has developed

into a relatively elaborate, empirically grounded, and recognizable theoretical framework.

Klijn (1997) offers an excellent overview of the theoretical background of the policy network approach. As shown in Figure 3.1, the theoretical roots of the policy network can be found in policy science, organizational science, and political science.

In spite of such criticism and limitations, however, policy network has some advantage as an approach for analysis. An advantage of the network concept is that it helps us to understand not only formal institutional arrangements but also highly complex informal relationships in the policy process (Kenis & Schneider, 1991).

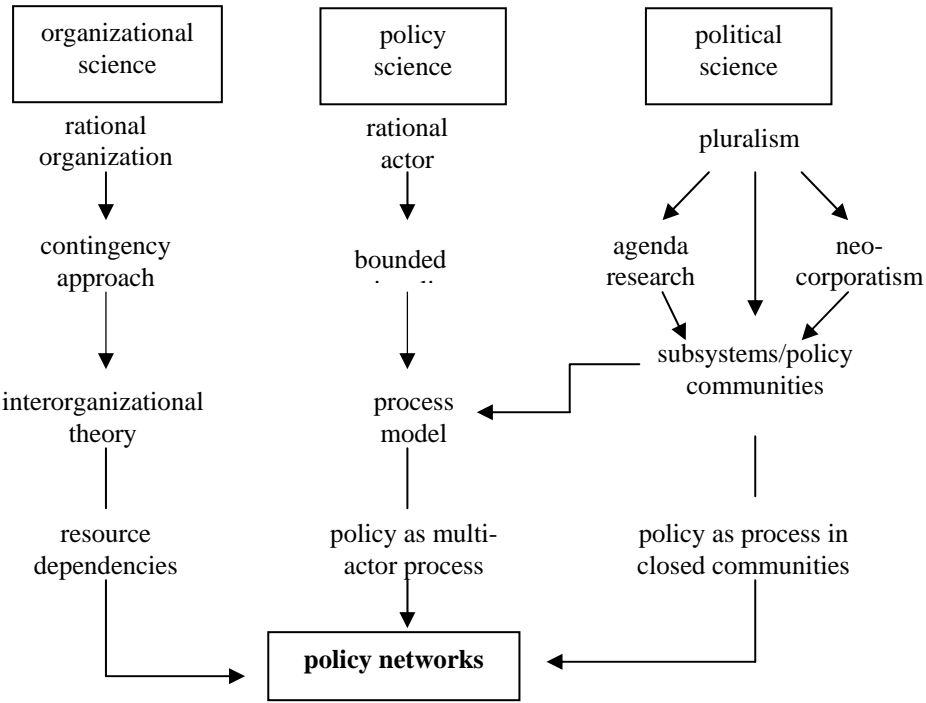


Figure 3.1 Theoretical Roots of Policy Networks (Klijn, 1997)

3.2.2 Advocacy Coalition Framework

The advocacy coalition framework (ACF) was developed by Sabatier (1988). Its goal was to provide a coherent understanding of the major factors and processes affecting the overall policy process, including problem definition, policy formulation, implementation, and revision in a specific policy domain—over periods of a decade or more. This framework emerged out of the following: (a) a search for an alternative to the stages heuristic that was then dominating policy studies, (b) a desire to synthesize the best features of the 'top-down' and 'bottom-up' approaches to policy implementation, and (c) a commitment to incorporate technical information in a more prominent role in policy process theories (Sabatier, 1998).

The ACF was developed upon a policy subsystem that is also known as a part of network theory. Various terms have been used by scholars, such as policy network, policy community, policy subsystem or policy domain (Coleman & Perl, 1999). Figure 3.2 presents a general overview of the framework from Sabatier (1998). On the the left side are two sets of exogenous variables—one quite stable and other more dynamic—that affect the constraints and opportunities of the subsystem actors.

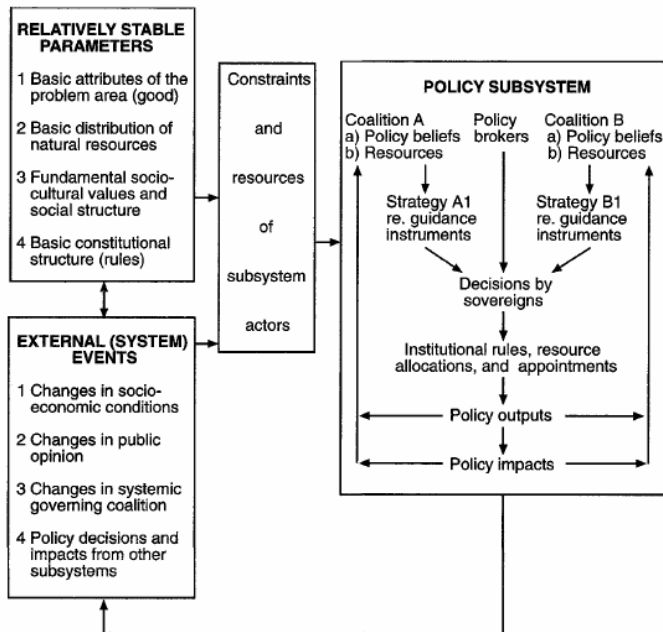


Figure 3.2 ACF Diagram 1998 Version (Sabatier, 1998)

Within the subsystem, the ACF assumes that actors can be aggregated into a number of 'advocacy coalitions' (usually one to four), each composed of actors from various government and private organizations, who both (a) share a set of normative and causal beliefs and (b) engage in a non-trivial degree of coordinated activity over time. The ACF explicitly argues that most coalitions will include not only interest group leaders but also agency officials, legislators from multiple levels of government, applied researchers, and perhaps even a few journalists. At any given point, the subsystem will usually contain a number of individuals and organizations unassociated with any coalition, but the ACF assumes that most will be unimportant over the long term because they will either leave or be incorporated into one of the coalitions (Sabatier, 1998).

Elliot and Schlaepfer (2001) used the ACF to analyze the development of forest certification systems in Canada, Indonesia, and Sweden. For the Indonesian case study, they confirm that the Indonesian forest policy subsystem is dominated by a close alliance between the forest industry and the Ministry of Forestry, which is called a Forestry Coalition. There is a second, much weaker, coalition of NGOs and social organizations, which could be called the Environmental Coalition. Furthermore, the researcher found changes in international public opinion, leading to greater environmental concerns in some of Indonesia's export markets, and the nomination of a new Minister of Forestry in 1993, who expressed concerns about the environmental impacts of forestry. Meanwhile, within the Indonesian forest policy subsystem, active policy learning was occurring throughout the 1990s, based on numerous national and international research projects and publications.

3.2.3 The Rounds Model

Teisman (2000) has compared and elaborated three models: the phase, the streams, and the rounds model in the Netherlands. The phase model focuses on successive and distinctive stages in a process, i.e. defining a problem, searching for, choosing and implementing solutions. The stream model emphasizes concurrent streams of participants, problems and solutions, defining decision making as the connection between these streams. Teisman then emphasized the third approach, the so-called rounds model, which assumed that decision making consists of different decision-making rounds.

The terms of rounds in decision making have been mentioned before by Kunreuther, Lathrop, & Linnerooth (1982). They developed an approach labeled the multi-attribute multi-party model (MAMP). The MAMP model is a natural extension of the burgeoning literature on the key role that limited time, attention, and information processing capabilities play in political decision making when there are uncertain outcomes and likely conflicts among interested parties. The model also highlights the importance of decentralized and sequential decision making and indicates the role that formal risk assessments have played at each stage of the process. The decision-making process can be separated into different rounds. A round is simply a convenient device to illustrate a change in the focus of discussions. This new focus or direction can be triggered by: (1) a key decision taken (or stalemate reached due to conflicts among parties) or (2) a change in the context of discussions due to an anticipated event, the entrance of a new party, or new evidence brought to the debate (Kunreuther et al., 1982).

As Radford (1978) and Monnikhof (2006) noted, the concept of rounds in decision making has been mentioned by Braybrooke (1974). Many complex decision problems are cyclical in nature. A round opens with an initiative or policy intention of one of the parties that serves as the “trigger” for the others. Each round ends with a crucial decision, a decision that offers a solution for the question that is central in the particular policy round. A crucial decision heralds a new round where it guides the subsequent policy game (Koppenjan & Klijn, 2004).

Teisman (2000) argues that the added value of the rounds model as compared to the phases and streams models can be summed up in three points. First, in term of actors, problems, and solutions, the rounds model focuses on the interaction between actors, during which they can negotiate acceptable combinations of problems and solutions. In the rounds model, decision making is not about a single issue, or about separated streams of problems, solutions, and participants, but about dynamic combinations of sets of problems and solutions represented by different actors. Second, in terms of policy adoption, yardsticks, or results, a round begins and ends with the adoption of a certain combination of a problem definition and a (virtual) solution by one or more actors. Third, in terms of policy evaluation and evaluation criteria, evaluation in the rounds model no longer focuses on the question of whether the policy result agrees with a single policy intention, but whether the result responds to the

objective of all the parties involved at the moment policy effects can be distinguished.

Figure 3.3 visualizes Teisman's version of the concept of decision making in the rounds model. Teisman (2000) has applied the model to the case of the Betuwe line, a railway line intended for the transport of cargo between the port of Rotterdam in the Netherlands and Germany.

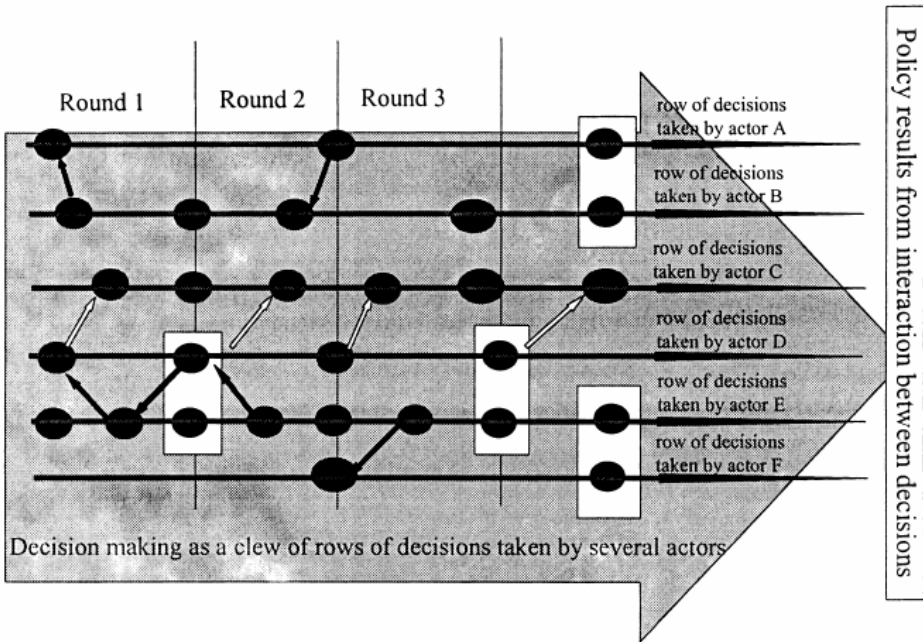


Figure 3.3 The Concept of Decision Making in the Rounds Model (Teisman, 2000)

3.2.4. Applying the Rounds Model and Networks Approach for Decision-making Process Analysis

In the foregoing section (3.2.1-3), the study has discussed three conceptual models or frameworks that are found in the decision-making process analysis literature. In regard to the large number of existing frameworks for decision-making process analysis, it is important to avoid creating and adding new ones unnecessarily. The most fruitful strategy would be to take the rounds model as the starting point since it explains the complexity of the decision-making process. The advantage of the rounds model is that it focuses on the

interaction between actors, and covers dynamic combinations of sets of problems and solutions in the decision-making process.

Since the study aims to elaborate the complexity of the decision-making process, the researcher has avoided binding himself too dogmatically or rigidly to one model or approach as each model has its own assumption. The aim is not to validate a preferred theoretical approach; rather, to borrow the model that has relevance in the context of the study. In addition to the rounds model, the policy network approach could complement the analysis.

To conduct the analysis, the study adopts the rounds model (Teisman, 2000) to identify the rounds of decision making and the actors involved. To get an insight into the actors and their interaction, an analysis of actor and arena of decision making is undertaken following Koppenjan and Klijn (2004).

3.3 Context: Infrastructure Policymaking, Changing Environment, and PPPs in Indonesia

This section briefly presents Indonesia's infrastructure development and policy and the changing environment of policymaking as a background to understand the actors, rules, and interactions: who participates and how they participate in the decision-making processes.

Despite major infrastructural development since the first five-year planning program was launched in the late 1960s, Indonesia still faces major challenges in its infrastructure sectors. In the transportation sector, roads in and around major cities are heavily congested, while many inter-urban and rural roads are in poor condition. The situation is almost the same for other sectors. There is a problem of insufficiency and spatial difference in infrastructure availability and service.

Geographic conditions and an uneven distribution of the population pose a challenge in infrastructure provision. Developing a transportation system that serves the needs of the people and links densely populated Java, the rugged and sparsely populated terrain of Papua, and the hundreds of small populated islands in the Maluku and Nusa Tenggara is no mean feat, as the system has to encompass inter-island shipping, river transportation, and civil aviation. Electricity supply systems outside the Java-Bali grid are highly fragmented. The fact that the primary energy resources are located

far from the main demand centers also makes infrastructure provision more difficult (Coordinating Ministry for Economic Affairs, 2006b). To overcome the situation, Indonesia has adopted a regional approach in developing infrastructure by dividing the country into three regions: the developed region located in the western part of Indonesia and the developing and the newly developing regions located in the east (see Figure 3.4). The developed region is where the economic activities are concentrated with high demand for infrastructure and high commercial viability. The other two less developed regions, although they have similar needs for infrastructure, have low commercial viability (Coordinating Ministry for Economic Affairs, 2005).

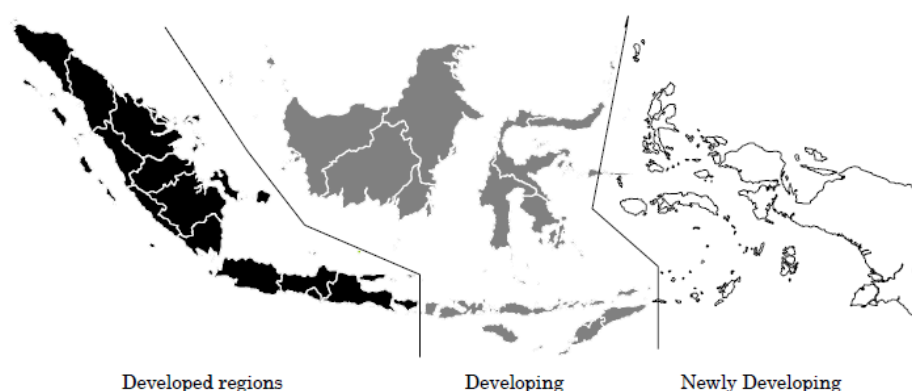


Figure 3.4 The Three Economic Regions in Indonesia

3.3.1 Changing Environment

During the Soeharto government regime (the New Order regime) beginning in 1966, the key components of the centralized system of public administration were put into place. The new system required all local government officials to be tied to a line ministry of the central government for budget and responsibility, and to the employees of the Ministry of Home Affairs for their salary. The national government appointed the district head (*bupati*), city mayors (*walikota*), and governors of the provinces. In addition, central government ministries operated offices at the local level, and

revenues for these offices (*dinas*) came directly from the central government (Silver, 2003).

There have been marked changes in the public management of infrastructure, particularly after the financial crisis in 1998. The environment in which policymaking takes place has changed. Basically, the policy and framework for infrastructure development were embedded in a five-year development plan, or Repelita [now Indonesia's medium-term development plan, or Rencana Pembangunan Jangka Menengah (RPJM)], which outlined the main policy priorities and direction of the government. Nowadays, the RPJM encapsulates the new president's vision of the future for the country and the strategy for its realization. This strategy marks yet another departure in the formulation of development policy. It underscores policy and institutional reform, and the role and involvement of civil society in development. It is more balanced in that the social and political agendas are just as important as the economic agenda.

The decentralization program that was launched initially in 1999 has transferred many responsibilities relating to infrastructure provision to sub-national entities. The role of central government agencies in infrastructure policymaking changed. There is now greater distribution of resources in decision making. In the past, Bappenas (the Ministry of National Development Planning) played an important role, which some people called a "super ministry." Bappenas prepared the Repelita. Along with the Coordinating Ministry for the Economy and Industry, it also coordinated Indonesia's policy development and had budgetary powers. Currently, its powers have been circumscribed, mainly because the ministry is no longer involved in budget decision making, focusing only on planning.

The role of budget allocation was then shared between the Ministry of Finance and the House of Representatives. This gave the latter a stronger role in decision making than in the past. As part of the institutional reformation, several new ministry-level committees were established. For infrastructure-related institutions, new committees such as the Committee on Policy for the Acceleration of Infrastructure Development (KKPPI), Toll Road Authority Agency (BPJT), Telecommunication Regulatory Agency (Badan Regulasi Telekomunikasi Indonesia—BRTI) and other sector specific or cross-sector committees were set up.

As a result, public management in terms of planning, coordination and implementation in infrastructure became

complicated. Responsibilities were divided both horizontally and vertically, making integration of planning and coordination of implementation a formidable challenge (World Bank, 2004).

Bappenas serves as the planning advisor for the committees, and the Coordinating Ministry of Economic Affairs focuses more on the short-term implementation matters.

New institutions, new actors and changing roles for the actors resulted in the decision making powers becoming more distributed. Other dimensions in Indonesia's environment of policymaking were corruption and governance (a sector department commonly combined the role of policymaker, regulator, and shareholder representative.)

Much effort has been made since the collapse of Soeharto's government to tackle corruption and create better governance. However, with the new environments and uncertainties involved, private businesses find that investment in infrastructure is more risky.

3.3.2 Public-Private Partnership

The lack of financing sources from the government budget has led policymakers to believe that PPP is one of the most promising answers for infrastructure investment. Infrastructure projects have been traditionally financed by government budgets and foreign loans, and operated by public entities. Driven by fiscal austerity and widespread disenchantment with the performance of SOEs, the government is now turning to the private sector to build, operate, finance, own, and transfer infrastructure facilities in many sectors.

Indonesia is now in transition, moving from the state to private provision of infrastructure. However, private involvement in Indonesia is hampered to a varying degree by factors such as an inadequate legal and regulatory framework, poorly structured concession and contractual arrangements, high transaction costs, and a lack of an established reputation and track record where PPPs are concerned (Coordinating Ministry for Economic Affairs, 2006a).

Much effort has been made, however, to restructure the government's role in many infrastructure sectors. In term of operations, the public sector's role is being transformed from that of a service provider to one of an overseer of service contracts. In policy-making, the government separates responsibility of strategic planning, from regulation, and operation. The demarcation of roles and the creation of independent regulatory agencies are particularly

important when there is competition between private and publicly owned service providers, and when there is a need to insulate tariffs from political pressure. One such example can be found in the road sector. Jasa Marga (the SOE for toll roads) is no longer the regulator as well as the road service provider. A new toll road regulator agency (BPJT) has been established.

This study assumes increased complexity in decision making. The changing environment has brought with it uncertainties. Raising networks and new players in policymaking can contribute to complexity. Even unitary decision makers face complexity, as Keeney and Raiffa (1976) noted; simple value problems would be conceptually easy to solve if there were no uncertainties. In complex value problems, consequences at the ends of the decision tree cannot be adequately described objectively by a single attribute.

3.4 Research Method

The previous section presented frameworks or models for the analysis. As Borzel (1998) has elaborated, in terms of the network approach, there are two methods (quantitative and qualitative) that researchers usually choose. Both methods consider networks as an analytical tool. The distinction is that the quantitative method approaches network analysis as social structure analysis. The relationships between actors are analyzed in terms of their cohesion, structural equivalence, and spatial representation using quantitative methods such as ascendant hierarchical classification, density tables, block models, etc. The qualitative approach, on the other hand, is more process-oriented. It focuses less on the mere structure of interaction between actors and more on the content of these interactions using qualitative methods. In this sense, the study prefers to use qualitative methods in order to respond to the research objective and questions.

The objective of this study is to understand the complexity of the decision-making process in infrastructure investment in Indonesia, particularly in PPP arrangements. The research question is how decision making in infrastructure investment, particularly in the PPP scheme, has been conducted in Indonesia. The sub-questions are: to what extent do complexities of decision making actually exist? How does the government, as a key actor deal with the new environment?

Like many other research studies that have been conducted in this area, this one, too, works with case studies. Case study as a research strategy has been extensively applied for the topic of decision making. It is also useful for covering contextual conditions. Yin (1994) has defined a case study as an empirical enquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between the phenomenon and the context are not clearly evident.

Four case studies on infrastructure investment based on the PPP scheme were selected (for a full description see section 3.5). These projects were selected because decision making in a PPP is extremely complex—there is not only institutional complexity but also strategic complexity (Klijn & Teisman, 2003).

The theory, framework, or model described had to be supported by evidence or facts. Gathering evidence for policy analysis can be usefully divided into two broad categories: document research and field research. Field research includes conducting interviews and gathering original data. Document research includes reviewing relevant literature dealing with theory and evidence and locating existing sources of raw (primary) data (Weimer & Vining, 2004).

The researcher's strategy in collecting data and evidence was twofold. First, collection of data on events: lists of actions and policies, i.e., what is recorded in newspaper archives. The researcher collected archival records of news related to the four projects from major national newspapers and magazines, (many are from KOMPAS, the daily newspaper). Then the data and results were verified by interviewing actors from the private sector and the government staff involved with or likely to know about the project. Interview guides (see Appendix 3.2) were used to interview 22 actors (for names and designations, see Appendix 3.3). These were among the most influential people in the network, with prominent positions in the major organizations or institutions in the network. In addition, the researcher gathered a number of policy documents from government offices and from preeminent actors such as private companies involved in the project.

The study concentrates on case studies related to the transport sector since transport infrastructure is closely related to economic geography and spatial development (see chapter 5). Another reason is that a transportation project such as a toll road is most suitable for a PPP case analysis in Indonesia. The study also considers case studies during different project time spans in order to capture policy evolution. Hence, four case studies covering different time periods

have been selected. The first one is the Cawang–Tanjung Priok toll road project for building an inner ring road in Jakarta. The project was completed in the 1990s and could be categorized as a success story. It is assumed that private-sector participation in this project was quite high. The second case study is the Cipularang toll road, a new toll road built in 2005 connecting two cities (Jakarta and Bandung) in two provinces (Jakarta and West Java). The third case study is the Jakarta Outer Ring Road (JORR) Project, which was completed recently. The fourth case study is a triple-decker project, a combination of arterial road, toll road, and light rail transportation located in Jakarta. This project, however, failed and was finally abandoned. So the study covers more and less recent cases among the research projects, and more and less successful ones. For each of the case studies, the analysis will start by identifying the “rounds” of decision making and the actors involved, and subsequently analyze the “arenas” of interaction between the actors.

3.5 Case Studies: Four PPP Toll Road Projects

This section presents a description of each of the infrastructure projects selected as a case study. To recapitulate, the researcher selected PPP project cases because PPPs are well suited as examples of decision making, cooperation, and coordination in a complex situation (Edelenbos & Klijn, 2007; Klijn & Teisman, 2003). The study deliberately selected PPP projects (toll roads) in the transport sector, which is one of the sectors in infrastructure development that is widely discussed for its impact on the spatial economy. (Appendix 3.1 shows location of case studies in Jakarta and West Java.)

Toll road development in Indonesia began in 1978 with the operation of the Jagorawi (Jakarta–Bogor–Ciawi) toll road. At the time, PT Jasa Marga was the only toll road operator in Indonesia. The government embarked for private sector participation in 1987 with the Build Operate Transfer (BOT) scheme. However, until 2006 only about 606 km of toll roads were in operation, of which 464 km was being managed by PT Jasa Marga, and the remaining 142 km by a private enterprise. This achievement is quite low when considered in the context of Indonesia’s geographic spread and the achievement of countries such as China and Malaysia.

In response to the low progress of toll road development, the government has focused on improving the PPP legal and institutional framework. This section sheds light on the decision-making process of infrastructure projects within the PPP scheme.

The first study on a toll-way system for Indonesia was done in 1974, right after the completion of the Jakarta Metropolitan Area Transportation Study (JMATS) conducted by a German consultant (Arge Becker-Intertraffic) under the framework of the Technical Cooperation Agreement between the Government of Indonesia and Federal Republic of Germany. The Directorate General of Highways (the Bina Marga) then commissioned the same consultant to investigate the technical, economic, and financial feasibility of the Jakarta-West Java Tollway system. The work started in November 1974 and was finished in October 1976. The Jakarta-West Java Tollway system comprised the Jakarta Intra Urban System of tollways, the Jakarta Ring Road, and three regional highways in the major transportation and development corridors leading east, west, and south from the capital city (Ministry of Public Works, 1978).

Based on the study, the government then decided to construct three regional highways surrounding Jakarta: the Jakarta-Bogor-Ciawi highway, the Jakarta-Tangerang highway, and the Jakarta-Cikampek highway. Construction of the first two was financed by the Overseas Cooperation Fund, Japan (OECF), and the third highway was financed by the World Bank.

The first case study is the Cawang-Tanjung Priok toll road project, which was then extended to the Cawang-Tanjung Priok-Pluit toll road. This is the first renowned PPP project for toll road development in Indonesia. The road was built and operated by a private company, PT Citra Marga Nusaphala Persada (CMNP). The company was owned and directed by Siti Hardiyanti Rukmana, a daughter of former president Soeharto. (She is no longer a shareholder of the company now.) The company got the contract from the government in 1987, and construction began in 1988.

The second case study examines the Cikampek-Purwakarta-Padalarang (Cipularang) toll road. The road has been designed to anticipate potential high traffic from Jakarta to Bandung and vice versa. It will connect two existing toll roads in Jakarta (the Jakarta-Cikampek toll road) and a toll road in Bandung (the Padalarang-Cileunyi toll road).

The third case study evaluates the JORR. Sixty-seven km long, the JORR was conceived in 1976 as part of the West Java Tollway System and was envisaged to play an important role in

complementing the three regional highway systems (Jagorawi, Jakarta-Cikampek, and Jakarta-Tangerang), to ease traffic congestion in the center of the capital, and to create a better links to the Tanjung Priok Harbour and the Soekarno Hatta Airport.

The fourth case study describes the Triple-Decker Project situated in Jakarta. It is a three-level transportation system consisting of an arterial road on the ground level, an elevated light rail transit track on the second level, and a toll road on the top level linking Cinere, South Jakarta, with downtown Kota, West Jakarta. The project was proposed and initiated by a private company, PT Citra Lamtorogung Persada, in cooperation with PT Steady Safe. One of the companies (PT Citra Lamtorogung Persada) is owned by Siti Hardiyanti Rukmana, better known as Mbak Tutut, the eldest daughter of President Soeharto.

3.6 Analysis and Discussion

The empirical events and the course of action taken by the actors in the four cases lead to an analysis of the decision-making processes, from which a number of conclusions can be drawn.

3.6.1 *Analysis of the First Case*

With closer attention to the streams of decisions taken by several actors, a number of different rounds can be distinguished. Table 3.1 summarizes the rounds of decision making in case number one.

The Cawang-Tanjung Priok toll road is part of Jakarta's intra-urban tollway. Initially, the road was built mainly to anticipate incoming traffic flow as a result of the completion of the regional highway between Jakarta and Cikampek. The government and donor agency realized that after the completion of the Jakarta-Cikampek freeway, the traffic volume for the metropolitan area of Jakarta was potentially high and could cause serious distribution problems inside Jakarta. The World Bank, which financed the Jakarta-Cikampek freeway, requested that the Directorate General of Highways should solve this problem.

The request by the World Bank was the starting point of the first round in the decision-making. The round ran smoothly, and there was no significant disagreement. It was completed when the government of Indonesia, using OECF funds, requested the Japanese

consultant (Pacific Consultants International) to conduct a review of the feasibility study of the Jakarta Intra Urban Tollway, including the preliminary design and detailed engineering services. The Jakarta Intra urban Tollway network then consisted of three links and additional one link of the Jakarta Harbour road that would connect the three regional highways. The feasibility study of the Cawang–Tanjung Priok toll road was completed in 1983.

Aiming to find alternative ways of financing infrastructure, the government decided to invite private partnership. The tender offering of the Cawang–Tanjung Priok toll road triggered the second round of the decision-making process, mainly to explore private participation. The round ended with the government declaring the CMNP consortium as the contractors. Following the decision, in 1987 a new feasibility study was conducted with a new, elevated toll road idea.

The third round started when a decision had to be made after the new toll road project Tanjung Priok–Pluit/ Jembatan Tiga was completed. The toll road was also operated by CMNP. Both projects are part of the intra urban tollway system. The other part of the project in the Intra Urban Tollway system (Cawang–Tomang–Pluit toll road) was executed by the state-owned company toll road operator PT Jasa Marga. A new proposal to increase the concession period of CMNP and revenue-sharing of the toll road collection between the CMNP and Jasa Marga was then submitted.

Table 3.1 Rounds of Decision Making (first case study)

Main empirical events	Interpretations based on the rounds model
A request by the World Bank to the government to anticipate transport problems in Jakarta. A feasibility study of the Jakarta Intra Urban Tollway then conducted, including the preliminary design and detailed engineering services (1983)	The first round: exploring an action to anticipate future problems and the need for transport infrastructure
Government offers partnership to private company. Finally, the CMNP consortium wins the contract (1986/1987).	The second round: making goals to develop and to apply the idea of a private provision in infrastructure

Main empirical events	Interpretations based on the rounds model
New construction of harbor toll road Tanjung Priok–Jembatan Tiga by PT CMNP as an extension of Cawang–Tanjung–Priuk toll road to Jembatan Tiga (1993)	The third round: new agreement on concession and revenue-sharing is proposed after the new toll road is constructed
Government announces it will evaluate and renegotiate toll road management and concession for Cawang–Priok–Pluit (2000). Finally, a new revenue-sharing agreement was reached (2002).	The fourth round: economic crisis followed by political reform creates huge pressure on the government to evaluate toll road management for projects touched by corruption

Adapted from Teisman (2000)

The third round was wrapped up when the government decided to combine the toll road projects into one package and distribute the combined revenues from toll collection in the network to PT Jasa Marga and PT CMNP. However, the allocation was unfair as PT CMNP received 75 percent while PT Jasa Marga received only 25 percent.

Provoked by anti-corruption and anti-Soeharto issues, in 2000, a fourth round emerged. The government announced that it was evaluating and renegotiating toll road management and concessions for the Cawang–Tanjung Priok–Pluit toll road, which was followed by the establishment of a team to renegotiate an unfair MOU on revenue sharing between PT Jasa Marga and PT CMNP. Finally, in 2002, a new deal on revenue sharing was announced: 55 percent for CMNP and 45 percent for Jasa Marga.

Table 3.2 depicts the group of actors that can be distinguished during each round of the decision-making process. In the first round, the study identified the World Bank, the Directorate General of Highways, and the government of Japan. In this round, all the actors shared the same perception about the problem even though they participated in different ways, since the resources they brought to the table were different.

In the second round, three actors were identified: the Directorate General of Highways, a private company, and a state-owned company, Jasa Marga. In this round, the government conducted a

PPP investment procedure. Participation was regulated by central government regulation. With common interests and a superior informal resource held by a private company (CMNP), the round went smoothly and finally CMNP was elected as the operator of the toll road. In the third round, CMNP dominated the decision-making process due to the informal power the consortium held. However, during the fourth round, the decision made in the third round had to be revised.

Table 3.2 Actor Analysis (first case study)

Round	Main actors	Participation
1	The World Bank	Requested the government to solve a potential problem of congestion in regard to the opening of new inter-regional highways
	Directorate General of Highways	Made the transport infrastructure planning and policy
	Government of Japan (OECF)	Financed the feasibility study
2	Directorate General of Highways	Sought private involvement in transport infrastructure development
	Private company (CMNP)	Participated in the process of private operator selection for the toll road
	Jasa Marga	As a toll road regulator at that time, Jasa Marga managed the agreement with CMNP
3	CMNP	Built and operated the new toll road connected to the previous toll road
	Jasa Marga	Cooperated with CMNP ideas of new toll road revenue-sharing
	Ministry of Finance & Ministry of Public Works	Issued the legal framework for the revenue-sharing agreement
4	Coordinating Ministry of Economic Affairs	Issued the legal framework for review of the toll road agreement link to suspected corruption
	Jasa Marga	Negotiated revenue-sharing

Round	Main actors	Participation
	CMNP	agreement Negotiated revenue-sharing agreement
	Ministry of Finance and Ministry of Public Works	Withdrew the previous legal framework for the revenue-sharing agreement

Adapted from Koppenjan and Klijn (2004)

Policy games are complex not only because there are many players making unpredictable strategic choices, but also because they are often simultaneously involved in more than one arena (Van-Gils & Klijn, 2007). The researcher identified four arenas in the first case: the planning arena, the PPP arena, the toll road management arena, and the political arena. Summaries of arena analysis are presented in Table 3.3 The fourth round, which deals with the review and renegotiation of revenue-sharing, takes place in two arenas: the toll road management arena and the political arena. The decision of the revenue-sharing review was made within the context of political reform, which then affected the decision made in the toll road management arena.

There were different interactions among the actors in each arena. The Directorate General of Highways had frequent interactions with almost all arenas, while the donor agencies had less frequent interactions compared to other actors. With this kind of contact pattern, the Directorate General of Highways became the central actor in the network.

Table 3.3 Arena Analysis (first case study)

Arena	Round	Key actors	Activities
Planning Arena	1	Responsible government department; donor agency	Preparing a policy to ease the projected problem in the transport system
PPP Arena	2	Government department; SOEs; private company	Exploring private partnership for transport infrastructure investment

Arena	Round	Key actors	Activities
Toll Road Management Arena	3	SOEs in toll road operation; a private company; Ministry of Public Works; Ministry of Finance	Creating new concession for toll road operation
	4	SOEs in toll road operation; a private company; the responsible government department	Renegotiating and revising the former agreement
Political Arena	4	House of Representatives; the responsible government department	Renegotiating and revising the former agreement

Adapted from Koppenjan and Klijn (2004)

3.6.2 Analysis of the Second Case Study

The same process that was followed for the first case study was adopted, beginning with identifying the rounds of decision making. Four rounds of decision making were identified, as summarized in Table 3.4. The first round started when the government decided to conduct a study on the Jakarta West Java tollway system. The study was completed in 1976. The government then decided to conduct a further feasibility study of the Jakarta–Cikampek toll road in 1984.

The second round dealt with an initiative for private partnership. Initially, in 1986, the project was offered internationally and tried to attract foreign investors. In the end, in 1994, PT Citra Ganesha Marga Nusantara emerged the winner in the bidding process and held the right of concession, to build and operate the Cikampek–Padalarang toll road network. The consortium members consisted of Trafalgar House from England with 40 percent of the shares, and PT Citra Lamtoro Gung Persada and PT Jasa Marga each had 30 percent. Land clearance was done by the government from 1990 to 1992.

However, the consortium did not make any significant progress in construction due to financial problems because of the Indonesian financial crisis in late 1997. The third round mainly dealt with the impact of the crisis. The government issued a presidential decree (number 39/97) in 1997 and decided to postpone major infrastructure projects (one of them the Cipularang toll road project). Later, in 2001, the Ministry of Settlements and Regional Infrastructure (now the Ministry of Public Works) withdrew the toll road concession from PT Citra Ganesha Marga Nusantara. Following that, PT Jasa Marga requested the right of concession of the Cipularang toll road project from the government. The government then agreed to give the Cipularang toll road concession to Jasa Marga.

Table 3.4 Rounds of Decision Making (second case study)

Main empirical events	Interpretations based on the rounds model
Study of the Jakarta-West Java Tollway system (finished in 1976). Project feasibility study (1984).	The first round explored a trans-regional highway transportation system
The toll road project was offered to foreign investors (1986). The consortium Citra Ganesha Marga Nusantara wins the contract (1994).	The second round explored private provision
The government announced its decision to delay the project because of the economic crisis (1997). The government then canceled the concession from CGMN (2001) and decided that Jasa Marga (toll road SOEs) should take over the project (2002).	The third round dealt with the financial crisis
President Megawati requested that Jasa Marga continue construction of stage II of the Cipularang toll road (2004).	The fourth round— Stage II of the Cipularang toll road

Adapted from Teisman (2000)

Construction of the first stage of the Cipularang toll road began in 2002. The first stage involved construction of 18 km of road, which was then officially opened for public use by President Megawati in 2004. During the ceremony, President Megawati requested that PT Jasa Marga construct the second stage of the Cipularang toll road, which was to be finished before April 2005, mainly because there was an Asia–Africa conference in Bandung in 2005. According to Jasa Marga’s previous plans, the second stage of the Cipularang toll road was scheduled for completion in 2006, not in 2005. Construction of the second stage of Cipularang (length 41 km) was technically more difficult due to the geographical terrain, which was hilly and required high bridges to be constructed. On April 24, 2005, participants in the Asia–Africa Conference finally used the road to travel from Jakarta to Bandung. The official opening ceremony was launched by President Susilo Bambang Yudhoyono in early June 2005, and the road opened to the public on April 26, 2005.

In the second case study, the actors are distinguishable in only three main groups: the central government, the private sector, and SOE for toll roads (Table 3.5). It was only to be expected that, in such a scenario, the central government would take the lead in decision making due to the social and political characteristics where the hierarchy in the public administration system was applied.

Table 3.5 Actor Analysis (second case study)

Round	Main actors	Participation
1	Directorate General of Highways	Transport infrastructure planning and policy
2	Directorate General of Highways	Sought private involvement in transport infrastructure development
	Private investor	Private operator of toll road
	Jasa Marga	As a toll road regulator at that time, Jasa Marga managed the agreement with private operator
3	Central Government	Decision to delay the project and revise the right to concession
	Jasa Marga	Interested in project development

Round	Main actors	Participation
4	Private operator (CGMN)	Loss of concession
	Central government	Full support during the second stage of development
	Jasa Marga	Sped up the project completion

Adapted from Koppenjan and Klijn (2004)

There were more actors involved in decision making during the second round. This was mainly due to government support for private participation in infrastructure investment. The pattern of participation and the perception of actors during the second round was similar to what was observed during the second round in the first case study.

The decisions about the Cikampek–Padalarang toll road project were made in more than one arena. The financial crisis also created a new context policy that affected the decision-making process in the PPP arena. Table 3.6 presents an arena analysis with the key actors’ involvement and their activities in the arena.

Readers can observe that in the interaction among the three actors in the second case study there exists almost the same high frequency of interaction. However, we should also note the institutional context, such as the formal structure of relationship between the Directorate General of Highways and Jasa Marga as an SOE. In this case, a formal rule should play an important role in the interaction process among actors. In reality, an informal rule is formed during the mutual interaction (Koppenjan & Klijn, 2004).

Table 3.6 Arena Analysis (second case study)

Arena	Round	Key actors	Activities
Planning Arena	1	Responsible government department	Creating a master plan of transportation network and policy
PPP Arena	2	Government department; SOEs; private company	Exploring private partnership for transport infrastructure investment

Adapted from Koppenjan and Klijn (2004)

3.6.3 Analysis of the Third Case Study

The first round of the decision-making process on the JORR project revolved around conducting a study on the Jakarta West Java tollway system. The study was completed in 1976. The second round related to the PPP initiative and ended with the decision that the JORR would be divided into seven sections (S, E1, E2, E3, N, W1, W2), and that the project concessions would be awarded to PT Citra Mataram Satnamarga Persada, PT Citra Bhakti Margatama Persada, and PT Marga Nurindo Bhakti under a BOT scheme with the state-owned toll operator PT Jasa Marga. Some of the private companies are partly owned by former president Soeharto's daughter Siti Hardijanti Rukmana.

Like the second case study (the Cipularang project), the third round of JORR decision making was related to the problem of the economic crisis in late 1997. Construction commenced in 1993, but had to be abandoned when the crisis occurred. The Asset Management Unit of the Indonesian Bank Restructuring Agency (IBRA) then took over the companies' bad debts as the three companies could not repay their loans to the banks. In return, the companies surrendered the toll road project to the agency. IBRA and Jasa Marga then established a new company under the name PT Jalantol Lingkar Luar Jakarta (JLJ) to take care of the toll road project and take responsibility for settling its debts to IBRA. One of the main duties of JLJ was to find a strategic partner or new investor for the JORR project.

In 2001, IBRA announced that a consortium company, DRB-HICOM from Malaysia, had been selected as the preferred bidder for JORR. However, in the same year, Parliament requested that the JORR project be retendered. The government agreed to retender JORR using the right-to-match scheme, where DRB-HICOM Malaysia was the preferred bidder. If other investors proposed a lower price, DRB-HICOM had the right to make the same bid. If DRB-HICOM was uninterested, then the winner who proposed the lowest price would be the investor. When the project retender process was finalized, there were four applicants: Torno Internationale Spa, Gamula Berhad, the Jakarta Infrastructure consortium, and the Malaysian consortium. However, all of them, including the preferred bidder, were rejected due to their inability to fulfill requirements. Later on, in 2002, legal opinion from the Attorney General, which was sought on a request from BPPN, said that the Malaysian consortium did not have a right anymore over the JORR project.

Table 3.7 Rounds of Decision Making (third case study)

Main empirical events	Interpretations based on the rounds model
Study of the Jakarta-West Java Tollway system (finished in 1976).	The first round covered planning transport infrastructure system and development
JORR was divided into seven sections and project concessions awarded to CMSP, CBMP, and MSB (1990s).	The second round dealt with public–private partnership
Presidential decree to postpone projects due to economic crisis (1997). Finally, JORR concession projects were awarded to the state-owned toll road operator Jasa Marga (2002)	The third round dealt with the financial crisis
Landowners rejected the compensation on offer of land acquisition (2004).	The fourth round tackled land acquisition

Adapted from Koppenjan and Klijn (2004)

The government, through the Committee on Financial Sector Policy (KKSK), finally decided that the JORR project should be transferred to the state-owned PT Jasa Marga. In addition, KKSK also gave Jasa Marga a discount, whereby the company could pay BPPN 50 percent of the total amount within six months, and could pay the rest by issuing an obligation. Jasa Marga then resumed construction under the JORR project. The third round ended when finally the government awarded Jasa Marga the JORR toll road project.

The fourth round was initiated to tackle the problem of land acquisition and clearing. A decision made by some landowners who rejected the compensation offered by Jasa Marga triggered a long battle during this round. It made little sense to go ahead and complete the construction of the toll road because of the blockade created by the landowners. Table 3.7 summarizes the rounds of decision-making process in the third case study.

To analyze the actors' participation and perceptions in the third case study, let us concentrate on the third and fourth rounds. In the first and second rounds, the actors, participation, and perception were almost identical to those of the previous cases. In the third round, actors who were not directly related to toll road investment were involved in the decision-making process. Actors such as the BPPN made a central decision by redistributing Indonesia's rights of toll road operator. A summary of the actor analysis is presented in Table 3.8, while arena analysis is presented in Table 3.9.

Table 3.8 Actor Analysis (third case study)

Round	Main actors	Participation
1	Directorate General of Highways	Transport infrastructure planning and policy
2	Directorate General of Highways	Seeking private involvement in transport infrastructure development
	Private investor	Private operator of toll road
3	Jasa Marga	As a toll road regulator at that time, Jasa Marga managed the agreement with the private operator
	Central Government	Decision to postpone the project and revise the concession right
	Jasa Marga	Interested in project development
	Indonesia Bank Restructuring Agency	Redistributing the project to a new investor
	Private toll road operator.	Interested in project development
4	Central Government	Drafting legal framework of land acquisition such as presidential decree.

Round	Main actors	Participation
	Jasa Marga	Persuading landowner and approaching the central government to create a legal framework for land acquisition for development
	Landowner	Demanding higher payment for land acquisition

Adapted from Koppenjan and Klijn (2004)

Table 3.9. Arena Analysis (third case study)

Arena	Round	Key actors	Activities
Planning Arena	1	Responsible government department	Creating a master plan of transportation network and policy
PPP Arena	2	Government department, SOEs, private company	Exploring private partnership for transport infrastructure investment
Banking and Asset Restructuring Arena	3	Committee on Financial Sector Policy; Indonesia Bank Restructuring Agency; banking sector; private company	Managing assets (such as toll road) and transferring a concession right and obligation
Political Arena	3	House of Representatives; the central government	Ensuring fair treatment of the toll road investment for toll road companies

Adapted from Koppenjan and Klijn (2004)

3.6.4 Analysis of the Fourth Case

The rounds of decision making started with a proposal by a private company, CMNP, to build a triple-decker project—a three-level transportation system. The project's aim was to resolve the chronic problem of transportation in Jakarta and, in particular, to ease the traffic congestion. The government also planned to construct a subway between Kota and Blok M, also in South Jakarta. Informally, President Soeharto agreed to the proposal of the elevated road linking Blok M and Kota in 1991, and the project feasibility study was completed in 1993.

Unlike the subway system, a three-level transportation triple-decker project for the Jakarta transportation network was not included in the spatial plan or the city's master plan for 1985–2005. This issue generated a second round of decision making related to spatial planning and environment. In August 1997, the project was then finally included in the revised 1997–2010 spatial plan, which replaced the 1985–2005 spatial plan.

Both projects seemed to have an equal chance of being adopted. According to the initial plan, the construction of the subway would begin in 1997, while the groundbreaking of the triple-decker project was also scheduled for mid-1997. The Mass Rapid Transit Subway system was to be built by a consortium of Indonesian, Japanese, and German companies called the Indonesian Japan European Group, and President Soeharto's son, Bambang Trihatmodjo, was part of it.

Realizing that the construction of a mass rapid railway network in Indonesia by private companies would be difficult at that time due to a series of constraints (all of the country's railway systems are under the control of the state-owned railway company Perumka, now PT KAI), PT Citra Lamtorogung Persada tried to cooperate with Perumka to operate the light rapid transit system. PT Jasa Marga was also to be part of the project for the toll road operation.

A legal issue came up before construction, viz. whether a presidential decree (Keppres) was required to carry out the construction. The company, however, secured permits or decision letters from the Ministry of Public Works and the Ministry of Transportation. But this did not satisfy the city government of Jakarta, who asked for a presidential decree as a legal basis to give a clear picture as to what role it should play.

Despite the heavy burden due to the financial crisis in late 1997, the company was still looking for a possibility to continue the project. A new governor, Sutiyoso, also supported continuation of the project.

A new issue that came up in 1998 was an environmental impact analysis (Analisis Mengenai Dampak Lingkungan—AMDAL). Since the construction activity had already been given the go ahead, the environmental impact analysis demand came quite late. Yet another issue was public involvement in the project. Furthermore, the developer was asked to place project implementation details in the public domain.

Finally, in early 1999, the government decided to cancel the triple-decker project permit. Thus the fourth round dealing with the Asian financial crisis ended with the cancellation of permits for construction and investment, the orders for which was released by the Ministry of Public Works and the Ministry of Transportation. Table 3.10 presents the rounds of decision making for the fourth case study.

Table 3.10 Rounds of Decision Making (fourth case study)

Main empirical events	Interpretations based on the rounds model
A proposal was submitted to the government by a private party for a triple-decker project. (1991). Feasibility study (1993)	The first round: proposal for triple-decker project
Project included in 1997–2010 revised Jakarta Metropolitan spatial plan (1997). Pressure on providing an environmental impact analysis prior construction (1998).	The second round: spatial planning and environment
The government decides to cancel the project permit letter (1999).	The third round: impact of the financial crisis

Adapted from Koppenjan and Klijn (2004)

The regional government of Jakarta played an important role in the decision making. The proposed infrastructure had to be in line with the spatial plan for Jakarta. Therefore, in the second round (see Table 3.11), the decision by the regional government to revise the spatial plan was central to the project.

Table 3.11 Actor Analysis (fourth case study)

Round	Main actors	Participation
1	Private Company	Proposing an unsolicited transport infrastructure project for the Jakarta area
	Central government (Ministry of Transportation and Ministry of Public Works)	Issuing construction permit
	Perumka (stated-owned train operator)	Agreeing to operate the train in the triple-decker system
2	Regional government	Revising the spatial plan
	Private company	Convincing the regional government and environmentalists
3	Private company	Recalculating the company's financial burden and exposure from the crisis
	Central government (Ministry of Transportation and Ministry of Public Works)	Canceling the consortium's construction permit

Adapted from Koppenjan and Klijn (2004)

The decision making involved in the proposed project was mainly located in two arenas: the planning arena and the regional policy arena. Table 3.12 presents the arena analysis. In this case, the local government participated significantly in the planning arena. The local government also became a key actor in the regional policy arena. Issues such as environmental impact assessment and spatial planning were discussed here.

Table 3.12 Arena Analysis (fourth case study)

Arena	Round	Key actors	Activities
Planning Arena	1	Private company, central government, local government	Submitting the proposal and making a decision
Regional Policy Arena	2	Local government, the Ministry and Department, environment interests group	Spatial planning and environmental planning

Adapted from Koppenjan and Klijn (2004)

3.6.5 Comparison of the Four Cases Studies

During the initial phase of the development of highways, the main actors in policymaking were the central government (the Directorate General of Highways) and the donor agency. Subsequently, as seen in the first case study, a private company came into the arena, and the donor agency exited the arena. The new policy of private involvement in infrastructure automatically added a new actor to the policymaking arena.

In addition, economic, social, and political environmental changes brought in new actors. The emergence of politicians in parliament as new actors can be seen clearly from the third case study; they played significant roles in the decision-making process. Furthermore, according to Blom-Hansen (1997), reform in municipal areas could also create new actors in the national arena.

The lack of public consultation, as can be seen from the fourth case study, shows that including actors who are concerned with the issues is essentially important in opening up the policy networks to an extensive set of actors who cannot be considered experts, but who are stakeholders all the same (Montpetit, 2003).

With the increasing number of actors, powers also become more distributed, and there was every likelihood that the central government's dominant role would be eroded. We can see from the planning initiative that among the four cases studies, only in the fourth one did the planning initiative come from the private sector. Therefore, generally, we can conclude that the public actors (central and city governments) continue to play a key role in the process, especially in consultation.

In the fourth case study, even though the developer had already received a permit letter from the Ministry of Public Works and the Ministry of Transportation, construction could not be started since the local network (city government of Jakarta and local council) could not make a decision without a presidential decree. This suggests that decisions in PPP projects have to be linked to various different actors, arenas, and networks, which constitutes not only an organizational problem in terms of management but also a domain problem (Klijn & Teisman, 2003).

In this framework, a specific role can be identified for network analysis. Network analyses are becoming an increasingly significant aspect of the governmental praxis as planning and policy designs move further and further from coercive centralized methods toward the more flexible and complex public management strategies characteristic of the current era of governance (Howlett, 2002).

3.7 Conclusion

This chapter examined the decision-making process of infrastructure through PPPs. The conclusion drawn was that it has become more complex. Based on a preliminary analysis of four case studies in Indonesian PPP projects, the study found evidence that in recent cases, in line with social and environmental changes, decision making could be seen as a series of rounds where decisions are taken in various arenas as a series of interactions among multiple actors involved in the network.

One of the apparent implications is that network analyses are also becoming increasingly significant for the planning and decision making of infrastructure in the current era of governance. The perspective of governance as network steering (Klijn & Koppenjan, 2000; Koppenjan & Klijn, 2004) recommends the participation of stakeholders in policymaking because of the interdependency between actors. Government and business, both control sources that are necessary to spatial investments and other policy (Oosten & Esselbrugge, 2004).

From this point of view, the design of policymaking for infrastructural investment and PPPs particularly should be more sensitive to the real characteristics of the decision-making process.

References

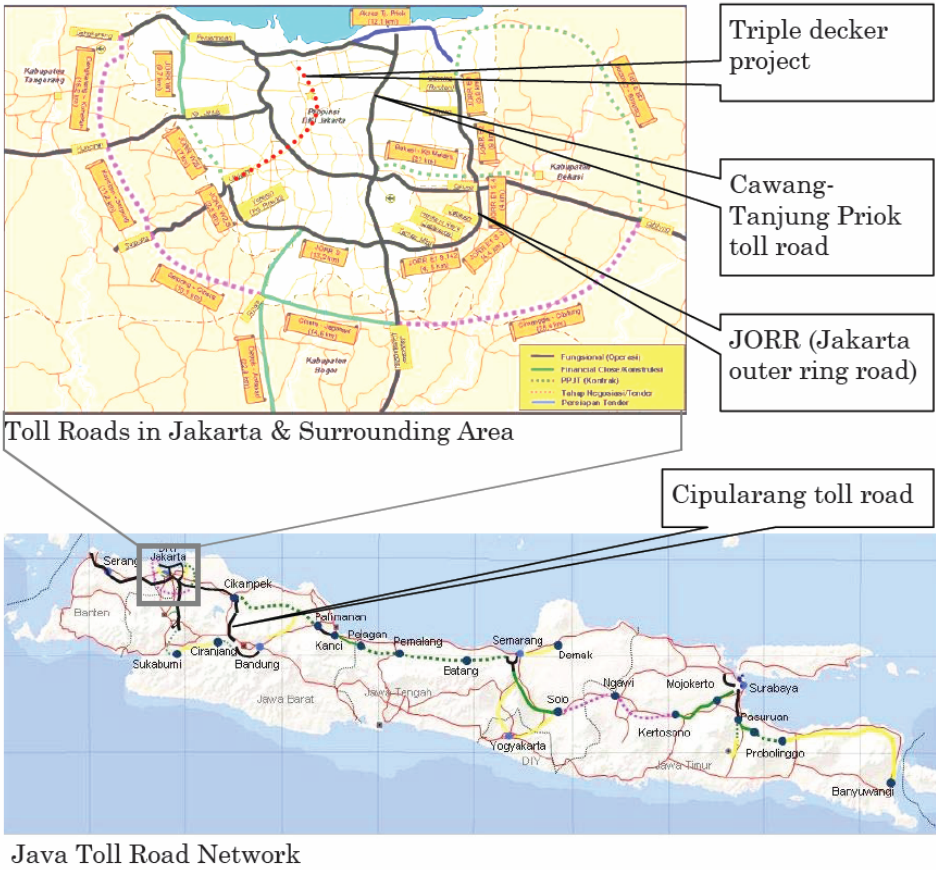
- Arts, B., & Tatenhove, J. v. (2005). Policy and power: A conceptual framework between the 'old' and 'new' policy idioms. *Policy Sciences*, 37, 339–356.
- Birkland, T. A. (2001). *An introduction to the policy process: Theories, concepts, and models of public policy making*. Armonk, NY: ME Sharpe.
- Blom-Hansen, J. (1997). A new institutional perspective on policy networks. *Public Administration*, 75, 669–693.
- Borzel, T. A. (1998). Organizing Babylon - on the different conceptions of policy networks. *Public Administration*, 76, 253–273.
- Braybrooke, D. (1974). Traffic congestion goes through the issue-machine; a case-study in issue processing, illustrating a new approach. London: Routledge & Kegan Paul.
- Castells, M. (2006). The network society: From knowledge to policy. In M. Castells & G. Cardoso (Eds.), *The network society: From knowledge to policy*. Washington, DC: Johns Hopkins Center for Transatlantic Relations.
- Coordinating Ministry for Economic Affairs. (2005). *A perspective on infrastructure development in Indonesia: Infrastructure outlook 2005*. Jakarta: Coordinating Ministry for Economic Affairs.
- Coordinating Ministry for Economic Affairs. (2006a). *Indonesia's infrastructure roadmap for public private partnership*. Jakarta: Coordinating Ministry for Economic Affairs.
- Coordinating Ministry for Economic Affairs. (2006b). *Recent developments in Indonesia's private sector participation (PSP) framework*. Jakarta: Coordinating Ministry for Economic Affairs.
- Cohen, M., March, J., & Olsen, J. (1972). A garbage can model of organizational choice. *Administrative Science Quarterly*, 17(1), 1–25.
- Coleman, W. D., & Perl, A. (1999). Internationalized policy environments and policy network analysis. *Political Studies*, 47(4), 691–709.
- Dasgupta, A., & Beard, V. A. (2007). Community-driven development, collective action and elite capture in Indonesia. *Development and Change* 38(2), 229–249.

- de-Bruijn, H. (2005). Roles for unilateral action in networks. *International Journal of Public Sector Management*, 18 (4), 318–329.
- Dowding, K. (1995). Model or metaphor: A critical review of the policy network. *Political Studies*, 43(1), 136–158.
- Edelenbos, J., & Klijn, E.-H. (2006). Managing stakeholder involvement in decision making: A comparative analysis of six interactive processes in the Netherlands. *Journal of Public Administration Research and Theory* 2006, 16(3), 417–446.
- Edelenbos, J., & Klijn, E.-H. (2007). Trust in complex decision-making networks: A Theoretical and empirical exploration. *Administration & Society*, 39(1), 25–50.
- Elliott, C., & Schlaepfer, R. (2001). Understanding forest certification using the Advocacy Coalition Framework. *Forest Policy and Economics*, 2(3), 257–266.
- Howlett, M. (2002). Do networks matter? Linking policy network structure to policy outcomes: Evidence from four Canadian policy sectors 1990-2000. *Canadian Journal of Political Science*, 35(2), 235–267.
- Keeney, R. R., & Raiffa, H. (1976). *Decisions with multiple objectives: Preferences and tradeoffs*. New York: John Wiley & Sons.
- Kenis, P., & Schneider, V. (1991). Policy networks and policy analysis: Scrutinizing a new analytical toolbox. In B. Marin & R. Mayntz (Eds.), *Policy networks: Empirical evidence and theoretical considerations*. Frankfurt: Campus Verlag.
- Klijn, E.-H., & Koppenjan, J. F. M. (2000). Public management and policy networks: Foundations of a network approach to governance. *Public Management*, 2(2), 135–158.
- Klijn, E. H. (1997). Policy network: An overview. In W. J. M. Kickert, E.-H. Klijn & J. F. Koppenjan (Eds.), *Managing complex networks*. London: Sage.
- Klijn, E. H., & Teisman, G. R. (2003). Institutional and strategic barriers to public–private partnership: An analysis of Dutch cases. *Public Money & Management*, 23(3), 137–146.
- Koppenjan, J., & Klijn, E.-H. (2004). *Managing uncertainties in networks: A network approach to problem solving and decision making*. London: Routledge.
- Kunreuther, H., Lathrop, J., & Linnerooth, J. (1982). A descriptive model of choice for siting facilities. *Behavioral Science*, 27(3), 281–297.
- Marin, B., & Mayntz, R. (1991). Introduction: Studying policy networks. In B. Marin & R. Mayntz (Eds.), *Policy networks:*

- Empirical evidence and theoretical considerations*. Frankfurt: Campus Verlag.
- Monnikhof, R. A. H. (2006). *Policy analysis for participatory policy making*. Dissertation, Technische Universiteit Delft, Delft.
- Montpetit, É. (2003). Public consultations in policy network environments: The case of assisted reproductive technology policy in Canada. *Canadian Public Policy*, 29(1), 95–110.
- Ministry of Public Works. (1978). *Summary of the review of the feasibility study for Jakarta Intra Urban Tollway*. Jakarta: Directorate General of Highways, Ministry of Public Works Republic of Indonesia.
- Oosten, W.-J., & Esselbrugge, M. (2004). Model of democracy in spatial investments: Participatory and representative democracy in two Dutch cases. *Public Management Review*, 6(2), 143–158.
- Radford, K. J. (1978). Decision-making in a turbulent environment. *The Journal of the Operational Research Society*, 29(7), 677–682.
- Rhodes, R. A. W. (1996). The new governance: Governing without government. *Political Studies*, 44(4), 652–667.
- Sabatier, P. A. (1988). An advocacy coalition framework of policy change and the role of policy-oriented learning therein. *Policy Sciences*, 21, 129–168.
- Sabatier, P. A. (1991). Toward better theories of the policy process. *Political Science and Politics*, 24(2), 147–156.
- Sabatier, P. A. (1998). The advocacy coalition framework: Revisions and relevance for Europe. *Journal of European Public Policy*, 5(1), 98–130.
- Silver, C. (2003). Do the donors have it right? Decentralization and changing local governance in Indonesia. *Annals of Regional Science*, 37, 421–434.
- Teisman, G. R. (2000). Models for research into decision-making processes: On phases, streams and decision-making rounds. *Public Administration*, 78(4), 937–956.
- Timothy, D. J. (1999). Participatory planning: A view of tourism in Indonesia. *Annals of Tourism Research*, 26(2), 371–391.
- Van-Gils, M., & Klijn, E.-H. (2007). Complexity in decision making: The case of the Rotterdam Harbour expansion. Connecting decisions, arenas and actors in spatial decision making. *Planning Theory & Practice*, 8(2), 139–159.

- World Bank. (2004). *Averting an infrastructure crisis: A framework for policy and action*. Jakarta: The World Bank Office Jakarta Indonesia.
- Weimer, D. L., & Vining, A. R. (2004). *Policy analysis: Concepts and practice* (4th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.
- Woltjer, J. (2002). The 'public support machine': Notions of the function of participatory planning by Dutch infrastructure planners. *Planning Practice & Research*, 17(4), 437–453.
- Yin, R. K. (1994). *Case study research: Design and methods* (2nd ed.). Thousand Oaks, CA: Sage.

Appendix 3.1 Location of case studies



Source: Indonesian Toll Road Authority (BPJT)
Retrieved on February 09, 2009 from <http://www.bpjt.net>

Appendix 3.2 Interview Guide

Two types of interview guides were used for this research: (1) An interview guide for the macro policy perspective, intended for policy makers to get information on the overall infrastructure policy process, and (2) An interview guide for project-specific processes, intended to get data and information on the project decision-making process (specifically as case studies).

(1) Interview guide for general overview of the infrastructure decision making process

Planning Process

- How is the planning of infrastructure done in your institution? Who has the responsibility?
- Does the planning result in a written document?

Budgeting and Financing Process

- How is the process of budgeting and financing in relation to infrastructure done?
- Who is involved in the process?

Infrastructure Data

- How is infrastructure data managed in your institution?
- What type of data is still missing and considered necessary?

Governance

- What obstacles and challenges occur in the planning, budgeting and financing of infrastructure?
- Are you satisfied with the policy-making process for infrastructure? Is there any recommendation you would make to improve it?

(2) Interview guide for the decision-making process of selected infrastructure projects (case studies)

Historical aspects

- Would you like to explain the history of the project (starting from the idea and proposal of the project)?

Policy Formulation and Adoption

- In your opinion (or that of your institution), do you (or your institution) think the project is necessary? Would you like to explain why?
- Was the project the only solution? Were there any alternatives to be considered?

Planning Process

- If your institution was involved in the planning process, how was the planning of the project done in your institution? Who had the responsibility?

Budgeting and Financing Process

- How was the budgeting and financing of the project done?

Strands of Activities

- Starting from the idea/initiative for this project, what problems and issues did you face?
- How did you (or your institution) respond to those issues and problems?
- During the process, were any non-technical issues (such as social, political etc.) raised?

Study, Data and Method

- Was any study done by your institution as a background to, or to support the decision of the project? Who conducted the study?
- Has any other study been done or directed by other institutions? Does it reach similar results and conclusion?

Governance

- What institutions or players were involved in the decision-making process of this project? What was the role of each of the institutions?
- How did you (or your institution) manage the relationship with the other players?

Appendix 3.3 List of Respondents

Bambang Susantono
Senior Adviser to the Minister, Coordinating Ministry for Economic Affairs

Suyono Dikun
Deputy Minister for Infrastructure and Regional Development,
Coordinating Ministry for Economic Affairs

Ir. Dedy Krisnariawan Sunoto
Investment Division PT Jasa Marga (SOE of toll road operator)

Hisnu Pawenang
Board Chairman, Indonesia Toll Road Authority (BPJT)

Lalu A. Damanhuri
Infrastructure Consultant, Committee on Policy for the Acceleration
of Infrastructure (KKPPI)

Ir. Rido Matari Ichwan, MCP
Head of Programming and Budgeting Division, Bureau of Planning
and International Cooperation, Ministry of Public Works

Pandu Gunadi A. ST. MUM
Head of Subdivision Programming and Budgeting II, Bureau of
Planning and International Cooperation, Ministry of Public Works

Sutono
Head of Data and Information, Directorate General of Highways,
Ministry of Public Works

Zulfikri
Planning Division, Research and Development Agency, Ministry of
Transportation

Lukas B. Sihombing
Assistant Manager, PT Citra Marga Nusphala Persada (Private toll
road company)

Dedy Gunawan, ST, MSc.

Directorate of Urban Road and Toll Road, Ministry of Public Works

Ir. Rahman Arief Dienaputra, M.Eng
Chief of Section of Policy and Strategy, Directorate of Planning,
Directorate General of Highways, Ministry of Public Works

Hasan Basri
Regional Development Planning (Bappeda), Jakarta

Sayogo
Regional Parliament Jakarta, Head of Commision D for
infrastructure

Bambang Setiadi
Manager, PT CMNP

Trijono Junoasmono
Directorate General of Highways, Ministry of Public Works

William Wallace
Lead Economist, World Bank, Jakarta

M Akbar
Transportation office, Regional government city of Jakarta

Sylvia Ananda
Transportation office, Regional government city of Jakarta

Listiyaning Handayani
Transportation office, Regional government city of Jakarta

Takehiro Yasui
Representative
Operation & Portfolio
Representative Office in Jakarta
Japan Bank for International Cooperation (JBIC)

Fahmi Shahab
Executive Director
Indonesian Industrial Estate Association (HKI)

Director PT Jalan Tol Lingkar Luar Jakarta: contacted but unable to meet

Marwan J.

Congress member: contacted but unable to meet

